

Our Oceans against marine debris

By Adam Webb

Marine waste and plastic pollution is a growing problem for us and our oceans. Tons and tons of plastic enter our oceans every year, where does it come from? Where does it end up? In this article I'll cover giant garbage islands scattered around our oceans, tiny microplastics sinking their way to the seafloor, and how this is proving to be a bigger problem than we thought.

There's two main kinds of pollution in our waters, chemical, and trash. Chemical pollution is concerning for health, economic, and environmental reasons. This variant of pollution mostly occurs when human activities, notably the use of fertiliser on farms, lead to the runoff of chemicals into rivers, streams, etc, that eventually flow into the ocean. But what about the trash side of things, how does so much rubbish end up in the ocean? Well a whopping four hundred million tons of plastic rubbish is produced every year, and a huge fourteen million tons of it ends up all around our oceans, coming from people leaving trash on beaches, throwing it into the water from boats or even offshore facilities, such as oil rigs. A good example of marine litter is E-Scooters being dumped, according to NZ Herald, 19 E-Scooters found by a diver had been stripped for parts and dumped in Wellington Harbour. Sometimes, litter makes its way into the ocean from land. The debris is carried by storm drains, canals, or rivers. Then going on to kill our marine life, and ending up in one of the five plastic islands/garbage patches. These huge trash islands actually correspond with the five main vortices/whirlpools of our seas: the two in the Pacific, the two in the Atlantic, and the one in the Indian Ocean. The biggest of these 5 garbage islands being The Great Pacific Garbage Patch located in the North Pacific vortex (between Hawaii and California). The



great pacific garbage patch is a huge collection of marine debris.

Theoceancleanup.com says, the pacific garbage patch has an estimated surface area of 1.6 million square kilometres!

You may be wondering, how does this whole marine pollution thing affect me? Well it doesn't just affect us, it also harms our beloved sea creatures. Countless marine animals get tangled in plastic debris and mistake plastic junk for food. Small organisms also eat tiny microplastics. Another instance of this problem affecting our lives is the perfect sandy beaches we know and love, all that will be left is —grey, dirty, sad— beaches covered in trash and litter, not only this but the quality of seafood would go down. So, what impact does this actually have on our seafood? Well, tiny microplastics and other debris accumulate in the stomachs of all kinds of marine creatures, notably plankton, shellfish, birds, fish, and sea turtles. Heavy metals and other contaminants have been found in seafood, making it harmful for humans to consume. Also the price of seafood would go up, marine debris is accountable for fisheries slowing down. for example, net repairs, time lost repairing nets, and dumped catch. So if you want good cheap seafood, do your part in cleaning our oceans! But what's the worst kind of marine litter, so we know what to really steer clear of? Well

specifically plastic cutlery is one of the most deadly plastics for sea turtles, birds and marine animals. It's sharp, and highly likely to be contaminated.

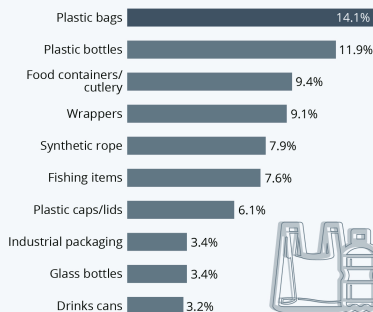
Remember, it's not just blatant litter that's corroding our oceans. Surprisingly, it's also all the little things we don't think about, so what's the solution? The simple answer is to use much less single use plastic products, and to dispose of them correctly. But that's not the only way to help, so if you want to help save our oceans, by doing as much as just using less harmful soaps and other chemical based products, recycle when possible, pick up litter when you see it, or just use less water in general, you actually do so much to help.

The good news is that many people, organisations, and even whole countries are taking action. According to a 2018 report from the United Nations, more than sixty countries have enacted regulations to limit or ban the use of disposable plastic items.

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Plastic Items Dominate Ocean Garbage

The 10 most widespread waste items polluting the world's oceans*



* Based on waste items found in seven aquatic ecosystems globally. Source: Carmen Morales-Caselles et al. (2021)



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